

Hannah Gross

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EDUCATION

Brown University

Providence, RI | Expected Graduation May 2023

Sc.B. in Mathematics - Computer Science

John F Kennedy High School, Abitur (& High School Diploma)

Berlin, Germany | Class of 2018

Honors classes: Math and Physics

GPA: 4.15 (weighted, 4.0 scale)

RESEARCH EXPERIENCE

Funhouse, Honors Thesis Project

Providence, RI | August 2022 - Present

Designed & implemented Funhouse - a new kind of database that allows for better access policies for internal users in a company by showing different users different views of the data it contains; upgrades allow people to temporarily elevate their access in a fine-grained and contextual way

ExploreCSR Research Program, Participant

Providence, RI | Jan 2022 – Present

Systems research program organized by Brown University and funded by Google

Worked with Malte Schwarzkopf, Lily Tsai, Eddie Kohler, on a system called Edna: designed and implemented a key management story for end users, helped write a paper submitted to OSDI '23

Brown University, Research Project

Providence, RI | Jan 2020 – Jun 2020

Research on Transformers as applied to formal language with Michael Littman

RESEARCH PUBLICATIONS

Lillian Tsai, Hannah Gross, Eddie Kohler, and Malte Schwarzkopf. "Flexible User Control over Data in Web Applications with Edna". In: *Under review at OSDI 2023*. December 2022.

Lillian Tsai, Hannah Gross, Eddie Kohler, and Malte Schwarzkopf. "Edna: Flexibly Sealing User Data in Web Applications". *Poster at OSDI 2022*. San Diego, CA. July 2022.

INDUSTRY EXPERIENCE

Amazon, Software Development Engineer Intern

Seattle, WA | Jun 2022 – Aug 2022

Worked on the Identity team, whose job was to store and manage passwords and password policies for AWS

Integrated into existing infrastructure checks for weak passwords and compromised logins

Designed and implemented these changes, created a functioning prototype, and made a final presentation

Full Stack at Brown, Project Manager

Providence, RI | Feb 2021 – Aug 2022

Managed multiple teams of 3-4 engineers and designers working on in pro-bono projects to build websites / web apps

For example, built a website for the club climbing team with an integrated event planning infrastructure to allow coordination of rides and locations, reducing planning time from hours to seconds

Theator, BI Analyst and Backend Engineer

Tel Aviv, Israel | May 2021 – Aug 2021

Set up an end to end data infrastructure that allowed analysts to run queries in minutes instead of hours and created the backend for dashboards on the application, working closely with the clinical and dev teams

Built a custom coded ETL process, a data warehouse on AWS, a backend API for that data warehouse, and dashboards on Metabase

Vaha, BI Analyst

Berlin, Germany | May 2020 – Aug 2020

Set up a data warehouse (ETL, staging, production, and DWH DB) in Progres

Built analyses and dashboards for management relating to product usage

Theator, *Programmer Intern*

Tel Aviv, Israel | Feb 2019 – Apr 2019

Programmed building blocks for data post-processing, simple computer vision tasks

Used ML to predict surgery length

CONFERENCES

Grace Hopper, *Attendee*

Orlando, FL | Sept 2022

Received a travel grant

OSDI, *Attendee*

San Diego, CA | July 2022

Received a travel grant

Presented Edna at the poster session

SKILLS & INTERESTS

Languages (computer): C++, C, Python, Java, SQL, Rust

Libraries: Numpy, pandas, tensorflow

Languages (human): Fluent in English and German, proficient in French

Interests: Gymnastics, Dance, Martial Arts, Philosophy, Literature